

**The Western European
Market for Computer
Software and Services
1989-1994**

INPUT



The Western European Market for Computer Software and Services 1989-1994

Preliminary Market Forecasts
by Country and Delivery Mode
for the Years 1988, 1989 and 1994

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Introduction

This is a preliminary extract of the detailed forecasts from INPUT's annual review of the Western European software and services market. These figures with commentary are being produced in INPUT's report:

Western European Market for Computer Software and Services, 1989-1994

To assist clients, INPUT is releasing just its detailed forecast data before the full report is printed.

Figures are end-user revenues by West European and by detailed delivery mode. Both local currency and conversions to U.S. dollars are given. The exchange rates used are given on the relevant country exhibit and are based on average second quarter IMF data.

**November 1989
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Exhibits

- 1 Europe, U.S. Dollars
- 2 Austria, local currency
- 3 Austria, U.S. Dollars
- 4 Belgium and Luxembourg, local currency
- 5 Belgium and Luxembourg, U.S. Dollars
- 6 Denmark, local currency
- 7 Denmark, U.S. Dollars
- 8 Finland, local currency
- 9 Finland, U.S. Dollars
- 10 France, local currency
- 11 France, U.S. Dollars
- 12 Italy, local currency
- 13 Italy, U.S. Dollars
- 14 Netherlands, local currency
- 15 Netherlands, U.S. Dollars
- 16 Norway, local currency
- 17 Norway, U.S. Dollars
- 18 Spain, local currency
- 19 Spain, U.S. Dollars
- 20 Sweden, local currency
- 21 Sweden, U.S. Dollars
- 22 Switzerland, local currency
- 23 Switzerland, U.S. Dollars
- 24 U.K., local currency
- 25 U.K., U.S. Dollars
- 26 West Germany, local currency
- 27 West Germany, U.S. Dollars
- 28 Rest of Europe, U.S. Dollars

COUNTRY: EUROPE

currency: U.S. \$

MARKET SECTOR	1988 U.S. \$	1989 U.S. \$	1988-1994 CAGR	1994 U.S. \$
PROCESSING SERVICES				
transaction, etc	6,427	6,764	5%	8,444
S.O.	550	670	20%	1,645
total	6,977	7,434	6%	10,089
NETWORK SERVICES				
network applications	556	781	29%	2,842
E.I.S.	1,599	2,179	22%	5,844
total	2,155	2,960	24%	8,685
TURNKEY SYSTEMS				
equipment	4,029	4,416	15%	8,778
packaged software	2,120	2,489	24%	7,217
customized software	495	642	22%	1,756
other prof services	424	482	30%	1,756
total	7,068	8,028	19%	19,506
SOFTWARE PRODUCTS				
system software	7,205	8,823	17%	19,580
application software	4,877	6,064	23%	16,980
total	12,082	14,887	20%	36,561
SYSTEMS INTEGRATION				
equipment	655	786	21%	2,016
software	91	115	26%	366
professional services	731	959	30%	3,604
other services	46	58	16%	122
total	1,523	1,918	26%	6,108
PROFESSIONAL SERVICES				
consultancy	1,615	1,978	22%	5,242
education & training	1,379	1,644	21%	4,292
software development	9,806	11,893	20%	29,320
S.O.	110	141	25%	429
total	12,910	15,656	20%	39,283
TOTAL	42,715	50,884	19%	120,232

COUNTRY: AUSTRIA

local currency: Sh Million
 (exchange rate 2Q '89 average
 \$1 = 13.6)

MARKET SECTOR	1988 Sh Million	1989 Sh Million	1988-1994 CAGR	1994 Sh Million
PROCESSING SERVICES				
transaction, etc	1,580	1,700	5%	2,170
S.O.	60	70	18%	160
total	1,640	1,770	6%	2,330
NETWORK SERVICES				
network applications	40	60	47%	410
E.I.S.	300	450	21%	1,170
total	340	510	25%	1,580
TURNKEY SYSTEMS				
equipment	1,140	1,254	16%	2,581
packaged software	600	707	25%	2,122
customized software	140	182	23%	516
other prof services	120	137	30%	516
total	2,000	2,280	20%	5,735
SOFTWARE PRODUCTS				
system software	1,900	2,300	16%	4,800
application software	1,220	1,500	22%	4,050
total	3,120	3,800	18%	8,850
SYSTEMS INTEGRATION				
equipment	82	103	21%	264
software	11	15	26%	48
professional services	91	125	30%	472
other services	6	8	16%	16
total	190	250	26%	800
PROFESSIONAL SERVICES				
consultancy	290	345	21%	895
education & training	320	378	22%	1,021
software development	1,660	1,942	18%	4,443
S.O.	20	25	21%	64
total	2,290	2,690	19%	6,423
TOTAL	9,580	11,300	18%	25,718

COUNTRY: AUSTRIA

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	116	125	5%	160
S.O.	4	5	18%	12
total	121	130	6%	171
NETWORK SERVICES				
network applications	3	4	47%	30
E.I.S.	22	33	21%	86
total	25	38	25%	116
TURNKEY SYSTEMS				
equipment	84	92	16%	190
packaged software	44	52	25%	156
customized software	10	13	23%	38
other prof services	9	10	30%	38
total	147	168	20%	422
SOFTWARE PRODUCTS				
system software	140	169	16%	353
application software	90	110	22%	298
total	229	279	18%	651
SYSTEMS INTEGRATION				
equipment	6	8	21%	19
software	1	1	26%	4
professional services	7	9	30%	35
other services	0	1	16%	1
total	14	18	26%	59
PROFESSIONAL SERVICES				
consultancy	21	25	21%	66
education & training	24	28	22%	75
software development	122	143	18%	327
S.O.	1	2	21%	5
total	168	198	19%	472
TOTAL	704	831	18%	1,891

COUNTRY: BELGIUM

local currency: BF Million
 (exchange rate 2Q '89 average
 \$1 = 40.5)

MARKET SECTOR	1988 BF Million	1989 BF Million	1988-1994 CAGR	1994 BF Million
PROCESSING SERVICES				
transaction, etc	7,000	7,350	3%	8,600
S.O.	800	940	18%	2,150
total	7,800	8,290	5%	10,750
NETWORK SERVICES				
network applications	540	870	30%	3,200
E.I.S.	1,460	1,900	22%	5,100
total	2,000	2,770	25%	8,300
TURNKEY SYSTEMS				
equipment	3,209	3,572	16%	7,423
packaged software	1,689	2,013	25%	6,103
customized software	394	520	23%	1,485
other prof services	338	390	31%	1,485
total	5,630	6,495	20%	16,495
SOFTWARE PRODUCTS				
system software	7,850	9,650	17%	21,500
application software	5,300	6,500	22%	17,600
total	13,150	16,150	19%	39,100
SYSTEMS INTEGRATION				
equipment	869	1,046	19%	2,475
software	121	153	24%	450
professional services	970	1,275	28%	4,425
other services	61	77	14%	150
total	2,020	2,550	24%	7,500
PROFESSIONAL SERVICES				
consultancy	2,180	2,681	24%	7,861
education & training	1,300	1,534	21%	3,979
software development	12,780	15,208	19%	36,292
S.O.	100	126	20%	314
total	16,360	19,549	20%	48,446
TOTAL	46,960	55,804	19%	130,591

COUNTRY: BELGIUM

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	173	181	3%	212
S.O.	20	23	18%	53
total	193	205	5%	265
NETWORK SERVICES				
network applications	13	21	30%	79
E.I.S.	36	47	22%	126
total	49	68	25%	205
TURNKEY SYSTEMS				
equipment	79	88	16%	183
packaged software	42	50	25%	151
customized software	10	13	23%	37
other prof services	8	10	31%	37
total	139	160	20%	407
SOFTWARE PRODUCTS				
system software	194	238	17%	531
application software	131	160	22%	435
total	325	399	19%	965
SYSTEMS INTEGRATION				
equipment	21	26	19%	61
software	3	4	24%	11
professional services	24	31	28%	109
other services	1	2	14%	4
total	50	63	24%	185
PROFESSIONAL SERVICES				
consultancy	54	66	24%	194
education & training	32	38	21%	98
software development	316	376	19%	896
S.O.	2	3	20%	8
total	404	483	20%	1,196
TOTAL	1,160	1,378	19%	3,224

COUNTRY: DENMARK

local currency: DK Million
 (exchange rate 2Q '89 average
 \$1 = 7.53)

MARKET SECTOR	1988 DK Million	1989 DK Million	1988-1994 CAGR	1994 DK Million
PROCESSING SERVICES				
transaction, etc	1,950	2,000	5%	2,600
S.O.	55	65	19%	155
total	2,005	2,065	6%	2,755
NETWORK SERVICES				
network applications	60	120	32%	490
E.I.S.	200	250	24%	720
total	260	370	27%	1,210
TURNKEY SYSTEMS				
equipment	707	778	16%	1,620
packaged software	372	439	25%	1,332
customized software	87	113	23%	324
other prof services	74	85	31%	324
total	1,240	1,415	21%	3,600
SOFTWARE PRODUCTS				
system software	1,100	1,350	18%	3,100
application software	850	1,050	23%	2,950
total	1,950	2,400	20%	6,050
SYSTEMS INTEGRATION				
equipment	60	70	19%	165
software	8	10	24%	30
professional services	67	85	28%	295
other services	4	5	14%	10
total	140	170	24%	500
PROFESSIONAL SERVICES				
consultancy	270	327	23%	920
education & training	80	94	20%	233
software development	1,540	1,848	19%	4,410
S.O.	10	13	22%	35
total	1,900	2,282	20%	5,598
TOTAL	7,495	8,702	18%	19,713

COUNTRY: DENMARK

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MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	259	266	5%	345
S.O.	7	9	19%	21
total	266	274	6%	366
NETWORK SERVICES				
network applications	8	16	32%	65
E.I.S.	27	33	24%	96
total	35	49	27%	161
TURNKEY SYSTEMS				
equipment	94	103	16%	215
packaged software	49	58	25%	177
customized software	12	15	23%	43
other prof services	10	11	31%	43
total	165	188	21%	478
SOFTWARE PRODUCTS				
system software	146	179	18%	412
application software	113	139	23%	392
total	259	319	20%	803
SYSTEMS INTEGRATION				
equipment	8	9	19%	22
software	1	1	24%	4
professional services	9	11	28%	39
other services	1	1	14%	1
total	19	23	24%	66
PROFESSIONAL SERVICES				
consultancy	36	43	23%	122
education & training	11	12	20%	31
software development	205	245	19%	586
S.O.	1	2	22%	5
total	252	303	20%	743
TOTAL	995	1,156	18%	2,618

COUNTRY: FINLAND

local currency: FM Million
 (exchange rate 2Q '89 average
 \$1 = 4.32)

MARKET SECTOR	1988 FM Million	1989 FM Million	1988-1994 CAGR	1994 FM Million
PROCESSING SERVICES				
transaction, etc	870	940	6%	1,250
S.O.	70	85	19%	200
total	940	1,025	7%	1,450
NETWORK SERVICES				
network applications	30	60	28%	210
E.I.S.	80	100	25%	300
total	110	160	26%	510
TURNKEY SYSTEMS				
equipment	296	327	16%	680
packaged software	156	184	25%	559
customized software	36	48	23%	136
other prof services	31	36	31%	136
total	520	595	20%	1,510
SOFTWARE PRODUCTS				
system software	510	625	18%	1,450
application software	380	480	23%	1,350
total	890	1,105	20%	2,800
SYSTEMS INTEGRATION				
equipment	17	21	23%	58
software	2	3	28%	11
professional services	19	25	33%	103
other services	1	2	18%	4
total	40	50	28%	175
PROFESSIONAL SERVICES				
consultancy	130	160	21%	415
education & training	50	60	19%	142
software development	720	871	20%	2,168
S.O.	10	13	20%	32
total	910	1,104	20%	2,757
TOTAL	3,410	4,039	18%	9,202

COUNTRY: FINLAND

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MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	201	218	6%	289
S.O.	16	20	19%	46
total	218	237	7%	336
NETWORK SERVICES				
network applications	7	14	28%	49
E.I.S.	19	23	25%	69
total	25	37	26%	118
TURNKEY SYSTEMS				
equipment	69	76	16%	157
packaged software	36	43	25%	129
customized software	8	11	23%	31
other prof services	7	8	31%	31
total	120	138	20%	350
SOFTWARE PRODUCTS				
system software	118	145	18%	336
application software	88	111	23%	313
total	206	256	20%	648
SYSTEMS INTEGRATION				
equipment	4	5	23%	13
software	1	1	28%	2
professional services	4	6	33%	24
other services	0	0	18%	1
total	9	12	28%	41
PROFESSIONAL SERVICES				
consultancy	30	37	21%	96
education & training	12	14	19%	33
software development	167	202	20%	502
S.O.	2	3	20%	7
total	211	256	20%	638
TOTAL	789	935	18%	2,130

COUNTRY: FRANCE

local currency: FF Million
 (exchange rate 2Q '89 average
 \$1 = 6.55)

MARKET SECTOR	1988 FF Million	1989 FF Million	1988-1994 CAGR	1994 FF Million
PROCESSING SERVICES				
transaction, etc	10,150	10,300	3%	11,700
S.O.	860	1,020	18%	2,350
total	11,010	11,320	4%	14,050
NETWORK SERVICES				
network applications	1,290	1,650	26%	5,300
E.I.S.	2,050	2,750	23%	7,600
total	3,340	4,400	24%	12,900
TURNKEY SYSTEMS				
equipment	4,003	4,478	15%	9,028
packaged software	2,107	2,524	24%	7,423
customized software	492	651	23%	1,806
other prof services	421	489	30%	1,806
total	7,022	8,142	20%	20,062
SOFTWARE PRODUCTS				
system software	10,200	12,400	17%	27,200
application software	6,500	8,100	23%	22,800
total	16,700	20,500	20%	50,000
SYSTEMS INTEGRATION				
equipment	925	1,107	22%	3,036
software	129	162	28%	552
professional services	1,032	1,350	32%	5,428
other services	65	81	18%	184
total	2,150	2,700	28%	9,200
PROFESSIONAL SERVICES				
consultancy	2,680	3,296	20%	8,202
education & training	2,060	2,472	22%	6,681
software development	19,690	24,022	21%	62,306
S.O.	210	269	27%	888
total	24,640	30,059	21%	78,077
TOTAL	64,862	77,121	19%	184,289

COUNTRY: FRANCE

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	1,550	1,573	3%	1,786
S.O.	131	156	18%	359
total	1,681	1,728	4%	2,145
NETWORK SERVICES				
network applications	197	252	26%	809
E.I.S.	313	420	23%	1,160
total	510	672	24%	1,969
TURNKEY SYSTEMS				
equipment	611	684	15%	1,378
packaged software	322	385	24%	1,133
customized software	75	99	23%	276
other prof services	64	75	30%	276
total	1,072	1,243	20%	3,063
SOFTWARE PRODUCTS				
system software	1,557	1,893	17%	4,153
application software	992	1,237	23%	3,481
total	2,550	3,130	20%	7,634
SYSTEMS INTEGRATION				
equipment	141	169	22%	464
software	20	25	28%	84
professional services	158	206	32%	829
other services	10	12	18%	28
total	328	412	28%	1,405
PROFESSIONAL SERVICES				
consultancy	409	503	20%	1,252
education & training	315	377	22%	1,020
software development	3,006	3,667	21%	9,512
S.O.	32	41	27%	136
total	3,762	4,589	21%	11,920
TOTAL	9,903	11,774	19%	28,136

COUNTRY: ITALY

local currency: Lr Billion
 (exchange rate 2Q '89 average
 \$1 = 1.409)

MARKET SECTOR	1988 Lr Billion	1989 Lr Billion	1988-1994 CAGR	1994 Lr Billion
PROCESSING SERVICES				
transaction, etc	960	1040	6%	1400
S.O.	115	140	20%	350
total	1,075	1,180	8%	1,750
NETWORK SERVICES				
network applications	70	100	31%	380
E.I.S.	250	350	21%	900
total	320	450	23%	1,280
TURNKEY SYSTEMS				
equipment	361	404	14%	793
packaged software	190	228	23%	652
customized software	44	59	22%	159
other prof services	38	44	29%	159
total	633	734	19%	1,762
SOFTWARE PRODUCTS				
system software	1,270	1,570	18%	3,590
application software	780	975	24%	2,850
total	2,050	2,545	20%	6,440
SYSTEMS INTEGRATION				
equipment	86	98	23%	274
software	12	14	28%	50
professional services	96	120	32%	490
other services	6	7	18%	17
total	200	240	28%	830
PROFESSIONAL SERVICES				
consultancy	280	344	24%	1,010
education & training	150	186	24%	545
software development	1,590	1,956	20%	4,866
S.O.	30	38	25%	114
total	2,050	2,524	21%	6,535
TOTAL	6,328	7,673	19%	18,597

COUNTRY: ITALY

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	681	738	6%	994
S.O.	82	99	20%	248
total	763	837	8%	1,242
NETWORK SERVICES				
network applications	50	71	31%	270
E.I.S.	177	248	21%	639
total	227	319	23%	908
TURNKEY SYSTEMS				
equipment	256	287	14%	563
packaged software	135	161	23%	463
customized software	31	42	22%	113
other prof services	27	31	29%	113
total	449	521	19%	1,251
SOFTWARE PRODUCTS				
system software	901	1,114	18%	2,548
application software	554	692	24%	2,023
total	1,455	1,806	20%	4,571
SYSTEMS INTEGRATION				
equipment	61	70	23%	194
software	9	10	28%	35
professional services	68	85	32%	348
other services	4	5	18%	12
total	142	170	28%	589
PROFESSIONAL SERVICES				
consultancy	199	244	24%	717
education & training	106	132	24%	387
software development	1,128	1,388	20%	3,454
S.O.	21	27	25%	81
total	1,455	1,791	21%	4,638
TOTAL	4,491	5,446	19%	13,199

COUNTRY: NETHERLANDS

local currency: Df Million
 (exchange rate 2Q '89 average
 \$1 = 2.18)

MARKET SECTOR	1988 Df Million	1989 Df Million	1988-1994 CAGR	1994 Df Million
PROCESSING SERVICES				
transaction, etc	750	800	3%	950
S.O.	100	120	20%	300
total	850	920	6%	1,250
NETWORK SERVICES				
network applications	60	85	30%	310
E.I.S.	140	180	18%	410
total	200	265	22%	720
TURNKEY SYSTEMS				
equipment	351	385	15%	776
packaged software	185	217	24%	638
customized software	43	56	23%	155
other prof services	37	42	30%	155
total	615	700	20%	1,725
SOFTWARE PRODUCTS				
system software	760	935	17%	2,050
application software	520	650	22%	1,750
total	1,280	1,585	19%	3,800
SYSTEMS INTEGRATION				
equipment	56	70	19%	165
software	8	10	24%	30
professional services	62	85	28%	295
other services	4	5	14%	10
total	130	170	24%	500
PROFESSIONAL SERVICES				
consultancy	200	240	22%	649
education & training	190	222	21%	577
software development	1,200	1,416	18%	3,239
S.O.	20	26	25%	79
total	1,610	1,904	19%	4,544
TOTAL	4,685	5,544	18%	12,539

COUNTRY: NETHERLANDS

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	344	367	3%	436
S.O.	46	55	20%	138
total	390	422	6%	573
NETWORK SERVICES				
network applications	28	39	30%	142
E.I.S.	64	83	18%	188
total	92	122	22%	330
TURNKEY SYSTEMS				
equipment	161	177	15%	356
packaged software	85	100	24%	293
customized software	20	26	23%	71
other prof services	17	19	30%	71
total	282	321	20%	791
SOFTWARE PRODUCTS				
system software	349	429	17%	940
application software	239	298	22%	803
total	587	727	19%	1,743
SYSTEMS INTEGRATION				
equipment	26	32	19%	76
software	4	5	24%	14
professional services	29	39	28%	135
other services	2	2	14%	5
total	60	78	24%	229
PROFESSIONAL SERVICES				
consultancy	92	110	22%	298
education & training	87	102	21%	265
software development	550	650	18%	1,486
S.O.	9	12	25%	36
total	739	873	19%	2,084
TOTAL	2,149	2,543	18%	5,752

COUNTRY: NORWAY

local currency: NK Million
 (exchange rate 2Q '89 average
 \$1 = 7.00)

MARKET SECTOR	1988 NK Million	1989 NK Million	1988-1994 CAGR	1994 NK Million
PROCESSING SERVICES				
transaction, etc	1,480	1,570	5%	2,000
S.O.	40	45	17%	100
total	1,520	1,615	5%	2,100
NETWORK SERVICES				
network applications	50	80	34%	350
E.I.S.	140	180	24%	520
total	190	260	27%	870
TURNKEY SYSTEMS				
equipment	507	556	16%	1,159
packaged software	267	313	25%	953
customized software	62	81	23%	232
other prof services	53	61	31%	232
total	890	1,010	21%	2,575
SOFTWARE PRODUCTS				
system software	850	1,050	17%	2,300
application software	620	760	22%	2,050
total	1,470	1,810	19%	4,350
SYSTEMS INTEGRATION				
equipment	47	53	15%	107
software	7	8	20%	20
professional services	53	65	24%	192
other services	3	4	11%	7
total	110	130	20%	325
PROFESSIONAL SERVICES				
consultancy	210	250	17%	548
education & training	80	94	18%	214
software development	1,190	1,404	17%	3,079
S.O.	10	13	16%	27
total	1,490	1,761	17%	3,868
TOTAL	5,670	6,586	16%	14,088

COUNTRY: NORWAY

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES transaction, etc S.O.	211 6	224 6	5% 17%	286 14
total	217	231	5%	300
NETWORK SERVICES network applications E.I.S.	7 20	11 26	34% 24%	50 74
total	27	37	27%	124
TURNKEY SYSTEMS equipment packaged software customized software other prof services	72 38 9 8	79 45 12 9	16% 25% 23% 31%	166 136 33 33
total	127	144	21%	368
SOFTWARE PRODUCTS system software application software	121 89	150 109	17% 22%	329 293
total	210	259	19%	621
SYSTEMS INTEGRATION equipment software professional services other services	7 1 8 0	8 1 9 1	15% 20% 24% 11%	15 3 27 1
total	16	19	20%	46
PROFESSIONAL SERVICES consultancy education & training software development S.O.	30 11 170 1	36 13 201 2	17% 18% 17% 16%	78 31 440 4
total	213	252	17%	553
TOTAL	810	941	16%	2,013

COUNTRY: SPAIN

local currency: Ps Million
 (exchange rate 2Q '89 average
 \$1 = 121)

MARKET SECTOR	1988 Ps Million	1989 Ps Million	1988-1994 CAGR	1994 Ps Million
PROCESSING SERVICES				
transaction, etc	22,500	25,500	12%	45,000
S.O.	1,500	1,800	20%	4,500
total	24,000	27,300	13%	49,500
NETWORK SERVICES				
network applications	1,140	2,400	40%	13,100
E.I.S.	3,700	7,300	25%	22,000
total	4,840	9,700	29%	35,100
TURNKEY SYSTEMS				
equipment	16,966	18,659	16%	38,426
packaged software	8,930	10,517	25%	31,594
customized software	2,084	2,714	23%	7,685
other prof services	1,786	2,036	30%	7,685
total	29,765	33,925	20%	85,390
SOFTWARE PRODUCTS				
system software	27,500	34,500	20%	86,000
application software	20,000	25,000	25%	76,500
total	47,500	59,500	22%	162,500
SYSTEMS INTEGRATION				
equipment	2,086	2,665	22%	7,095
software	291	390	27%	1,290
professional services	2,328	3,250	31%	12,685
other services	146	195	17%	430
total	4,850	6,500	27%	21,500
PROFESSIONAL SERVICES				
consultancy	4,990	6,337	25%	19,340
education & training	2,960	3,759	25%	11,472
software development	27,880	34,571	23%	97,328
S.O.	800	1,032	20%	2,568
total	36,630	45,699	23%	130,708
TOTAL	147,585	182,624	22%	484,698

COUNTRY: SPAIN

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MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	186	211	12%	372
S.O.	12	15	20%	37
total	198	226	13%	409
NETWORK SERVICES				
network applications	9	20	40%	108
E.I.S.	31	60	25%	182
total	40	80	29%	290
TURNKEY SYSTEMS				
equipment	140	154	16%	318
packaged software	74	87	25%	261
customized software	17	22	23%	64
other prof services	15	17	30%	64
total	246	280	20%	706
SOFTWARE PRODUCTS				
system software	227	285	20%	711
application software	165	207	25%	632
total	393	492	22%	1,343
SYSTEMS INTEGRATION				
equipment	17	22	22%	59
software	2	3	27%	11
professional services	19	27	31%	105
other services	1	2	17%	4
total	40	54	27%	178
PROFESSIONAL SERVICES				
consultancy	41	52	25%	160
education & training	24	31	25%	95
software development	230	286	23%	804
S.O.	7	9	20%	21
total	303	378	23%	1,080
TOTAL	1,220	1,509	22%	4,006

COUNTRY: SWEDEN

local currency: SK Million
 (exchange rate 2Q '89 average
 \$1 = 6.55)

MARKET SECTOR	1988 SK Million	1989 SK Million	1988-1994 CAGR	1994 SK Million
PROCESSING SERVICES transaction, etc S.O.	2,250 150	2,400 180	5% 17%	3,100 400
total	2,400	2,580	6%	3,500
NETWORK SERVICES network applications E.I.S.	70 230	140 300	32% 23%	570 850
total	300	440	26%	1,420
TURNKEY SYSTEMS equipment packaged software customized software other prof services	829 437 102 87	910 513 132 99	16% 25% 23% 31%	1,897 1,560 379 379
total	1,455	1,655	21%	4,215
SOFTWARE PRODUCTS system software application software	1,350 1,000	1,670 1,250	18% 23%	3,850 3,500
total	2,350	2,920	20%	7,350
SYSTEMS INTEGRATION equipment software professional services other services	82 11 91 6	96 14 118 7	21% 27% 31% 17%	254 46 454 15
total	190	235	27%	770
PROFESSIONAL SERVICES consultancy education & training software development S.O.	320 370 1,830 10	390 437 2,196 13	20% 19% 19% 20%	971 1,042 5,240 32
total	2,530	3,036	19%	7,285
TOTAL	9,225	10,866	18%	24,540

COUNTRY: SWEDEN

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	344	366	5%	473
S.O.	23	27	17%	61
total	366	394	6%	534
NETWORK SERVICES				
network applications	11	21	32%	87
E.I.S.	35	46	23%	130
total	46	67	26%	217
TURNKEY SYSTEMS				
equipment	127	139	16%	290
packaged software	67	78	25%	238
customized software	16	20	23%	58
other prof services	13	15	31%	58
total	222	253	21%	644
SOFTWARE PRODUCTS				
system software	206	255	18%	588
application software	153	191	23%	534
total	359	446	20%	1,122
SYSTEMS INTEGRATION				
equipment	12	15	21%	39
software	2	2	27%	7
professional services	14	18	31%	69
other services	1	1	17%	2
total	29	36	27%	118
PROFESSIONAL SERVICES				
consultancy	49	60	20%	148
education & training	56	67	19%	159
software development	279	335	19%	800
S.O.	2	2	20%	5
total	386	464	19%	1,112
TOTAL	1,408	1,659	18%	3,747

COUNTRY: SWITZERLAND

local currency: SF Million
 (exchange rate 2Q '89 average
 \$1 = 1.70)

MARKET SECTOR	1988 SF Million	1989 SF Million	1988-1994 CAGR	1994 SF Million
PROCESSING SERVICES				
transaction, etc	320	340	6%	450
S.O.	20	24	20%	60
total	340	364	7%	510
NETWORK SERVICES				
network applications	10	20	41%	110
E.I.S.	80	120	21%	310
total	90	140	25%	420
TURNKEY SYSTEMS				
equipment	294	322	16%	662
packaged software	155	181	25%	544
customized software	36	47	23%	132
other prof services	31	35	30%	132
total	515	585	20%	1,470
SOFTWARE PRODUCTS				
system software	460	560	16%	1,200
application software	310	390	22%	1,050
total	770	950	19%	2,250
SYSTEMS INTEGRATION				
equipment	22	27	22%	73
software	3	4	28%	13
professional services	24	33	32%	130
other services	2	2	18%	4
total	50	65	28%	220
PROFESSIONAL SERVICES				
consultancy	70	84	21%	218
education & training	110	130	21%	337
software development	410	488	18%	1,116
S.O.	2	3	15%	6
total	592	705	19%	1,677
TOTAL	2,357	2,809	18%	6,547

COUNTRY: SWITZERLAND

MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	188	200	6%	265
S.O.	12	14	20%	35
total	200	214	7%	300
NETWORK SERVICES				
network applications	6	12	41%	65
E.I.S.	47	71	21%	182
total	53	82	25%	247
TURNKEY SYSTEMS				
equipment	173	189	16%	389
packaged software	91	107	25%	320
customized software	21	28	23%	78
other prof services	18	21	30%	78
total	303	344	20%	865
SOFTWARE PRODUCTS				
system software	271	329	16%	706
application software	182	229	22%	618
total	453	559	19%	1,324
SYSTEMS INTEGRATION				
equipment	13	16	22%	43
software	2	2	28%	8
professional services	14	19	32%	76
other services	1	1	18%	3
total	29	38	28%	129
PROFESSIONAL SERVICES				
consultancy	41	49	21%	128
education & training	65	76	21%	198
software development	241	287	18%	656
S.O.	1	2	15%	4
total	348	415	19%	986
TOTAL	1,386	1,652	18%	3,851

COUNTRY: U.K.

local currency: £ Million
 (exchange rate 2Q '89 average
 \$1 = 0.61)

MARKET SECTOR	1988 £ Million	1989 £ Million	1988-1994 CAGR	1994 £ Million
PROCESSING SERVICES				
transaction, etc	480	510	4%	620
S.O.	85	110	22%	300
total	565	620	8%	920
NETWORK SERVICES				
network applications	110	135	28%	460
E.I.S.	320	430	20%	1,050
total	430	565	22%	1,510
TURNKEY SYSTEMS				
equipment	543	592	15%	1,189
packaged software	286	334	24%	978
customized software	67	86	23%	238
other prof services	57	65	30%	238
total	953	1,077	20%	2,643
SOFTWARE PRODUCTS				
system software	770	940	17%	2,060
application software	560	700	23%	1,970
total	1,330	1,640	20%	4,030
SYSTEMS INTEGRATION				
equipment	110	131	19%	314
software	15	19	24%	57
professional services	122	160	28%	561
other services	8	10	15%	19
total	255	320	24%	950
PROFESSIONAL SERVICES				
consultancy	210	263	23%	739
education & training	160	192	22%	519
software development	1,140	1,402	19%	3,346
S.O.	10	13	28%	44
total	1,520	1,870	20%	4,648
TOTAL	5,053	6,092	19%	14,701

COUNTRY: U.K.

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MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	787	836	4%	1,016
S.O.	139	180	22%	492
total	926	1,016	8%	1,508
NETWORK SERVICES				
network applications	180	221	28%	754
E.I.S.	525	705	20%	1,721
total	705	926	22%	2,475
TURNKEY SYSTEMS				
equipment	891	971	15%	1,950
packaged software	469	547	24%	1,603
customized software	109	141	23%	390
other prof services	94	106	30%	390
total	1,562	1,766	20%	4,333
SOFTWARE PRODUCTS				
system software	1,262	1,541	17%	3,377
application software	918	1,148	23%	3,230
total	2,180	2,689	20%	6,607
SYSTEMS INTEGRATION				
equipment	180	215	19%	514
software	25	31	24%	93
professional services	201	262	28%	919
other services	13	16	15%	31
total	418	525	24%	1,557
PROFESSIONAL SERVICES				
consultancy	344	431	23%	1,211
education & training	262	315	22%	851
software development	1,869	2,298	19%	5,485
S.O.	16	21	28%	72
total	2,492	3,066	20%	7,620
TOTAL	8,284	9,987	19%	24,100

COUNTRY: WEST GERMANY

local currency: DM Million
 (exchange rate 2Q '89 average
 \$1 = 1.93)

MARKET SECTOR	1988 DM Million	1989 DM Million	1988-1994 CAGR	1994 DM Million
PROCESSING SERVICES				
transaction, etc	2570	2700	4%	3300
S.O.	90	105	16%	220
total	2,660	2,805	5%	3,520
NETWORK SERVICES				
network applications	70	140	34%	600
E.I.S.	520	710	25%	2200
total	590	850	27%	2,800
TURNKEY SYSTEMS				
equipment	2,363	2,554	14%	4,851
packaged software	1,244	1,439	23%	3,988
customized software	290	371	21%	970
other prof services	249	279	28%	970
total	4,146	4,643	18%	10,779
SOFTWARE PRODUCTS				
system software	3,150	3,850	17%	8,450
application software	2,150	2,650	22%	7,200
total	5,300	6,500	19%	15,650
SYSTEMS INTEGRATION				
equipment	297	361	21%	924
software	41	53	26%	168
professional services	331	440	30%	1,652
other services	21	26	16%	56
total	690	880	26%	2,800
PROFESSIONAL SERVICES				
consultancy	490	583	19%	1,391
education & training	710	831	19%	1,982
software development	2,790	3,320	19%	7,923
S.O.	20	25	26%	78
total	4,010	4,759	19%	11,374
TOTAL	17,396	20,437	18%	46,923

COUNTRY: WEST GERMANY

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MARKET SECTOR	1988 \$ million	1989 \$ million	1988-1994 CAGR	1994 \$ million
PROCESSING SERVICES				
transaction, etc	1,332	1,399	4%	1,710
S.O.	47	54	16%	114
total	1,378	1,453	5%	1,824
NETWORK SERVICES				
network applications	36	73	34%	311
E.I.S.	269	368	25%	1,140
total	306	440	27%	1,451
TURNKEY SYSTEMS				
equipment	1,224	1,323	14%	2,513
packaged software	644	746	23%	2,066
customized software	150	192	21%	503
other prof services	129	144	28%	503
total	2,148	2,406	18%	5,585
SOFTWARE PRODUCTS				
system software	1,632	1,995	17%	4,378
application software	1,114	1,373	22%	3,731
total	2,746	3,368	19%	8,109
SYSTEMS INTEGRATION				
equipment	154	187	21%	479
software	21	27	26%	87
professional services	172	228	30%	856
other services	11	14	16%	29
total	358	456	26%	1,451
PROFESSIONAL SERVICES				
consultancy	254	302	19%	721
education & training	368	431	19%	1,027
software development	1,446	1,720	19%	4,105
S.O.	10	13	26%	40
total	2,078	2,466	19%	5,893
TOTAL	9,013	10,589	18%	24,312

COUNTRY: REST OF EUROPE

currency: \$ Million
 (exchange rate 2Q '89 average
 \$1 = 1.00)

MARKET SECTOR	1988 \$ Million	1989 \$ Million	1988-1994 CAGR	1994 \$ Million
PROCESSING SERVICES				
transaction, etc	55	60	11%	100
S.O.	5	6	20%	15
total	60	66	12%	115
NETWORK SERVICES				
network applications	1	5	36%	23
E.I.S.	14	17	24%	50
total	15	22	27%	73
TURNKEY SYSTEMS				
equipment	48	53	16%	110
packaged software	26	30	25%	91
customized software	6	8	23%	22
other prof services	5	6	31%	22
total	85	97	20%	245
SOFTWARE PRODUCTS				
system software	80	100	17%	220
application software	50	60	27%	200
total	130	160	21%	420
SYSTEMS INTEGRATION				
equipment	5	6	24%	18
software	1	1	30%	3
professional services	6	8	34%	32
other services	0	0	20%	1
total	12	15	30%	55
PROFESSIONAL SERVICES				
consultancy	15	18	23%	50
education & training	6	8	24%	23
software development	77	95	23%	267
S.O.	2	3	15%	6
total	100	124	23%	346
TOTAL	402	484	21%	1,254

